

Audet (10771895)

(SALONI) - COMP. SEARCH #2

=> d his nofile

(FILE 'HOME' ENTERED AT 14:48:38 ON 09 NOV 2006)

FILE 'REGISTRY' ENTERED AT 14:48:46 ON 09 NOV 2006

L1 STRUCTURE UPLOADED
L2 2 SEA SSS SAM L1
L3 STRUCTURE UPLOADED
L4 STRUCTURE UPLOADED
L5 7 SEA SSS SAM L4
L6 2 SEA ABB=ON PLU=ON L5 AND L2
D SCAN
L7 56 SEA SSS FUL L4
SAVE L7 MAURY/A TEMP

FILE 'HCAPLUS' ENTERED AT 14:54:44 ON 09 NOV 2006

E US2004-771895/APPS
L8 2 SEA ABB=ON PLU=ON (US2004-771895/AP OR US2004-771895/PRN)
D SCAN

FILE 'REGISTRY' ENTERED AT 14:55:25 ON 09 NOV 2006

L9 1 SEA ABB=ON PLU=ON 714394-75-9
D SCAN
D BROWSE
L10 1 SEA ABB=ON PLU=ON 672305-37-2
D SCAN
D BROWSE
L11 1 SEA ABB=ON PLU=ON 533881-58-2
D SCAN
L12 1 SEA ABB=ON PLU=ON 672305-37-2
D SCAN
E HUMAN GROWTH HORMONE/CN
L13 1 SEA ABB=ON PLU=ON "HUMAN GROWTH HORMONE"/CN
D BROWSE

FILE 'HCAPLUS' ENTERED AT 14:57:59 ON 09 NOV 2006

D SCAN L8
SEL RN L8

FILE 'REGISTRY' ENTERED AT 14:58:38 ON 09 NOV 2006

L14 7 SEA ABB=ON PLU=ON (9002-72-6/BI OR 672305-37-2/BI OR
25322-68-3/BI OR 533881-58-2/BI OR 714394-75-9/BI OR 721176-24-
5/BI OR 82030-87-3/BI)
L15 0 SEA ABB=ON PLU=ON L14 AND L7
D RN L13
L*** DEL 1 S 12629-01-5
L16 0 SEA ABB=ON PLU=ON 12629-01-5/CRN
E SOMATOTROPIN/CN
E SOMATOTROPIN/CN
L17 1 SEA ABB=ON PLU=ON SOMATOTROPIN/CN
D BROWSE
L18 8 SEA ABB=ON PLU=ON 9002-72-6/CRN
L19 1 SEA ABB=ON PLU=ON 721176-24-5
D SCAN
L20 0 SEA ABB=ON PLU=ON 721176-24-5/CRN
D BROWSE L19
L21 1 SEA ABB=ON PLU=ON 82030-87-3
D SCAN
L22 12 SEA ABB=ON PLU=ON (L13 OR L17 OR L18 OR L19 OR L20 OR L21)

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E E HUMAN GROWTH HORMONE/CN
E HUMAN GROWTH HORMONE/CN
L23      16 SEA ABB=ON PLU=ON ("HUMAN GROWTH HORMONE 1-43"/CN OR "HUMAN
        GROWTH HORMONE 172-191"/CN OR "HUMAN GROWTH HORMONE RELEASING
        FACTOR, HGRF(21-29)"/CN OR "HUMAN GROWTH HORMONE SEQUENCE
        1-24"/CN OR "HUMAN GROWTH HORMONE SEQUENCE 122-153"/CN OR
        "HUMAN GROWTH HORMONE SEQUENCE 154-188"/CN OR "HUMAN GROWTH
        HORMONE SEQUENCE 25-51"/CN OR "HUMAN GROWTH HORMONE SEQUENCE
        81-121"/CN OR "HUMAN GROWTH HORMONE(32-46)"/CN OR "HUMAN
        GROWTH HORMONE(6-13)"/CN OR "HUMAN GROWTH HORMONE-(177-191)"/CN
        OR "HUMAN GROWTH HORMONE-RELEASING FACTOR"/CN OR "HUMAN
        GROWTH HORMONE-RELEASING FACTOR 1-40 AMIDE"/CN OR "HUMAN
        GROWTH HORMONE-RELEASING FACTOR(1-29) AMIDE"/CN OR "HUMAN
        GROWTH HORMONE-RELEASING FACTOR(1-40)"/CN OR "HUMAN GROWTH
        HORMONE-RELEASING FACTOR(1-40)-OH"/CN OR "HUMAN GROWTH
        HORMONE-RELEASING FACTOR(1-44)"/CN OR "HUMAN GROWTH HORMONE-REL
        EASING HORMONE"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE
        (1-40)"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE (1-44)
        AMIDE"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE(1-29)
        AMIDE"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE(1-40)-OH"/
        CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE(1-44)"/CN OR
        "HUMAN GROWTH HORMONE-RELEASING HORMONE-(1-30)-AMIDE"/CN)
E SOMATOTROPIN/CN
E SOMATOTROPIN/CN
L24      28 SEA ABB=ON PLU=ON (L22 OR L23)
L25      3186 SEA ABB=ON PLU=ON (SOMATOTROPIN? OR HUMAN GROWTH HORMONE?)
L26      3188 SEA ABB=ON PLU=ON (L22 OR L23 OR L24 OR L25)

FILE 'HCAPLUS' ENTERED AT 15:04:40 ON 09 NOV 2006
L27      40 SEA ABB=ON PLU=ON L7
L*** DEL 72235 S L26
L28      1431 SEA ABB=ON PLU=ON HUMAN GROWTH HORMONE/CT
        E HUMAN GROWTH HORMONE/CT
        E E3+ALL
L29      1431 SEA ABB=ON PLU=ON "HUMAN GROWTH HORMONE"/CT
        E SOMATOTROPIN/CT
        E E3+ALL
        E E2+ALL
L30      36015 SEA ABB=ON PLU=ON "GROWTH HORMONE"+RT/CT

FILE 'REGISTRY' ENTERED AT 15:05:45 ON 09 NOV 2006
        E SOMATROPIN/CN
L31      2 SEA ABB=ON PLU=ON (SOMATROPIN/CN OR "SOMATROTROPIN, PRE-
        (GIRAFFA CAMELOPARDALIS)"/CN)
L32      3189 SEA ABB=ON PLU=ON (L26 OR L31)

FILE 'HCAPLUS' ENTERED AT 15:06:10 ON 09 NOV 2006
L33      72235 SEA ABB=ON PLU=ON L32
L34      18482 SEA ABB=ON PLU=ON (SOMATOTROPIN? OR HUMAN GROWTH HORMONE? OR
        SOMATROPIN?)/OBI,BI
L35      75833 SEA ABB=ON PLU=ON (L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR
        L34)
L36      8240 SEA ABB=ON PLU=ON (CORPORMON? OR CRESCORMON? OR GENOTROPIN?
        OR HUMAN GROWTH HORMONE? OR HUMATROP? OR INFITROPIN? OR
        NORDITROPIN? OR NORDOTROPIN? OR NUTROPIN? OR SAIZEN? OR
        SOMATOGEN? OR SR(1A)29001)/OBI,BI
L37      2267 SEA ABB=ON PLU=ON (VALTROPIN? OR ZOMACTON? OR ZORBTIVE? OR
        PHYOL? OR PHYONE? OR PITUITARY GROWTH HORMONE? OR SOMACTON? OR
        SOTROPIN? OR STH OR ANTERIOR PITUITARY GROWTH HORMONE? OR

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ADENOHYPOPHYSEAL GROWTH HORMONE?)/OBI,BI
L*** DEL 76868 S L33-L37
L38 76868 SEA ABB=ON PLU=ON (L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR
L34 OR L35 OR L36 OR L37 OR L***)
L39 0 SEA ABB=ON PLU=ON L38 AND L27

FILE 'REGISTRY' ENTERED AT 15:11:03 ON 09 NOV 2006
L40 0 SEA ABB=ON PLU=ON L32 AND L7

FILE 'MEDLINE, EMBASE, BIOSIS, CAOLD' ENTERED AT 15:11:53 ON 09 NOV 2006
L41 0 SEA ABB=ON PLU=ON L7

FILE 'REGISTRY' ENTERED AT 15:12:54 ON 09 NOV 2006

FILE 'BEILSTEIN' ENTERED AT 15:13:37 ON 09 NOV 2006
L42 27 SEA SSS FUL L4
L43 26 SEA ABB=ON PLU=ON L42 NOT L7
L44 23 SEA ABB=ON PLU=ON L42/COM
L45 22 SEA ABB=ON PLU=ON L44 NOT L7

FILE 'WPIX' ENTERED AT 15:14:27 ON 09 NOV 2006
L46 0 SEA SSS SAM L4
L47 0 SEA SSS FUL L4
D QUE L4

FILE 'STNGUIDE' ENTERED AT 15:17:59 ON 09 NOV 2006

FILE 'REGISTRY' ENTERED AT 15:19:07 ON 09 NOV 2006

FILE 'STNGUIDE' ENTERED AT 15:20:28 ON 09 NOV 2006

FILE 'HCAPLUS' ENTERED AT 15:23:44 ON 09 NOV 2006
L48 0 SEA ABB=ON PLU=ON L8 AND L27

FILE 'STNGUIDE' ENTERED AT 15:24:13 ON 09 NOV 2006

FILE 'REGISTRY' ENTERED AT 16:16:12 ON 09 NOV 2006
SAVE L32 MAURYHGG/A TEMP

FILE 'REGISTRY' ENTERED AT 16:23:25 ON 09 NOV 2006
L49 STRUCTURE UPLOADED
L50 8 SEA SSS SAM L49
L51 204 SEA SSS FUL L49
L52 56 SEA ABB=ON PLU=ON L51 AND L7

FILE 'HCAPLUS' ENTERED AT 16:24:28 ON 09 NOV 2006
L53 169 SEA ABB=ON PLU=ON L51
L54 6 SEA ABB=ON PLU=ON L53 AND L38
D KWIC

FILE 'REGISTRY' ENTERED AT 16:24:58 ON 09 NOV 2006
L55 0 SEA ABB=ON PLU=ON L51 AND L32

FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 16:25:16 ON 09 NOV 2006
L56 0 SEA ABB=ON PLU=ON L51

FILE 'WPIX' ENTERED AT 16:25:25 ON 09 NOV 2006
L57 0 SEA SSS FUL L49

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=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 16:26:00 ON 09 NOV 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 9 Nov 2006 VOL 145 ISS 20
FILE LAST UPDATED: 8 Nov 2006 (20061108/ED)

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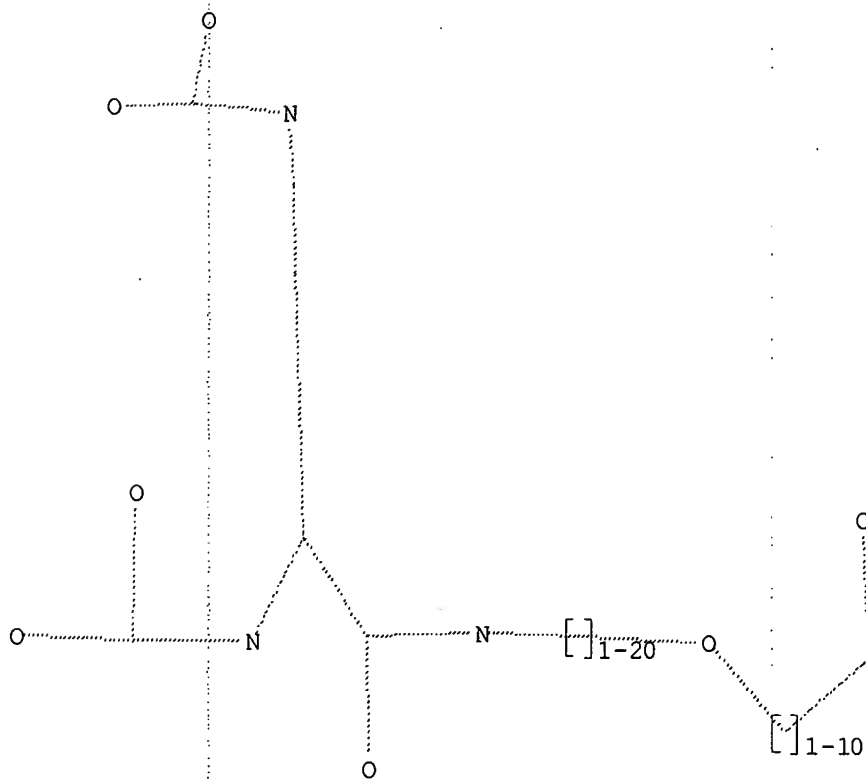
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que 154

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L18	8	SEA FILE=REGISTRY	ABB=ON	PLU=ON	9002-72-6/CRN
L19	1	SEA FILE=REGISTRY	ABB=ON	PLU=ON	721176-24-5
L20	0	SEA FILE=REGISTRY	ABB=ON	PLU=ON	721176-24-5/CRN
L21	1	SEA FILE=REGISTRY	ABB=ON	PLU=ON	82030-87-3
L22	12	SEA FILE=REGISTRY	ABB=ON	PLU=ON	(L13 OR L17 OR L18 OR L19 OR L20 OR L21)
L23	16	SEA FILE=REGISTRY	ABB=ON	PLU=ON	("HUMAN GROWTH HORMONE 1-43"/CN OR "HUMAN GROWTH HORMONE 172-191"/CN OR "HUMAN GROWTH HORMONE RELEASING FACTOR, HGRF(21-29)"/CN OR "HUMAN GROWTH HORMONE SEQUENCE 1-24"/CN OR "HUMAN GROWTH HORMONE SEQUENCE 122-153"/CN OR "HUMAN GROWTH HORMONE SEQUENCE 154-188"/CN OR "HUMAN GROWTH HORMONE SEQUENCE 25-51"/CN OR "HUMAN GROWTH HORMONE SEQUENCE 81-121"/CN OR "HUMAN GROWTH HORMONE(32-46)"/CN OR "HUMAN GROWTH HORMONE(6-13)"/CN OR "HUMAN GROWTH HORMONE-(177-191)"/CN OR "HUMAN GROWTH HORMONE-RELEASING FACTOR"/CN OR "HUMAN GROWTH HORMONE-RELEASING FACTOR 1-40 AMIDE"/CN OR "HUMAN GROWTH HORMONE-RELEASING FACTOR(1-29) AMIDE"/CN OR "HUMAN GROWTH HORMONE-RELEASING FACTOR(1-40)"/CN OR "HUMAN GROWTH HORMONE-RELEASING FACTOR(1-40)-OH"/CN OR "HUMAN GROWTH HORMONE-RELEASING FACTOR(1-44)"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE (1-44) AMIDE"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE(1-29) AMIDE"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE(1-40)-OH"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE(1-44)"/CN OR "HUMAN GROWTH HORMONE-RELEASING HORMONE-(1-30)-AMIDE"/CN)
L24	28	SEA FILE=REGISTRY	ABB=ON	PLU=ON	(L22 OR L23)
L25	3186	SEA FILE=REGISTRY	ABB=ON	PLU=ON	(SOMATOTROPIN? OR HUMAN GROWTH HORMONE?)
L26	3188	SEA FILE=REGISTRY	ABB=ON	PLU=ON	(L22 OR L23 OR L24 OR L25)
L28	1431	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	HUMAN GROWTH HORMONE/CT

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L29 1431 SEA FILE=HCAPLUS ABB=ON PLU=ON "HUMAN GROWTH HORMONE"/CT
L30 36015 SEA FILE=HCAPLUS ABB=ON PLU=ON "GROWTH HORMONE"+RT/CT
L31 2 SEA FILE=REGISTRY ABB=ON PLU=ON (SOMATROPIN/CN OR "SOMATROTRO
PIN, PRE- (GIRAFFA CAMELOPARDALIS)"/CN)
L32 3189 SEA FILE=REGISTRY ABB=ON PLU=ON (L26 OR L31)
L33 72235 SEA FILE=HCAPLUS ABB=ON PLU=ON L32
L34 18482 SEA FILE=HCAPLUS ABB=ON PLU=ON (SOMATOTROPIN? OR HUMAN
GROWTH HORMONE? OR SOMATROPIN?)/OBI,BI
L35 75833 SEA FILE=HCAPLUS ABB=ON PLU=ON (L28 OR L29 OR L30 OR L31 OR
L32 OR L33 OR L34)
L36 8240 SEA FILE=HCAPLUS ABB=ON PLU=ON (CORPORMON? OR CRESCORMON? OR
GENOTROPIN? OR HUMAN GROWTH HORMONE? OR HUMATROP? OR INFITROPIN
? OR NORDITROPIN? OR NORDOTROPIN? OR NUTROPIN? OR SAIZEN? OR
SOMATOGEN? OR SR(1A)29001)/OBI,BI
L37 2267 SEA FILE=HCAPLUS ABB=ON PLU=ON (VALTROPIN? OR ZOMACTON? OR
ZORBTIVE? OR PHYOL? OR PHYONE? OR PITUITARY GROWTH HORMONE? OR
SOMACTON? OR SOTROPIN? OR STH OR ANTERIOR PITUITARY GROWTH
HORMONE? OR ADENOHYPOPHYSEAL GROWTH HORMONE?)/OBI,BI
L38 76868 SEA FILE=HCAPLUS ABB=ON PLU=ON (L28 OR L29 OR L30 OR L31 OR
L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L***)
L49 STR



Structure attributes must be viewed using STN Express query preparation.

L51 204 SEA FILE=REGISTRY SSS FUL L49
L53 169 SEA FILE=HCAPLUS ABB=ON PLU=ON L51
L54 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L38

Audet 10771895

=> d ibib abs hitind hitstr 154 tot

L54 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:811678 HCAPLUS

DOCUMENT NUMBER: 143:235348

TITLE: Chemically-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses

INVENTOR(S): Girard, Thomas J.; Finn, Rory F.; Siegel, Ned R.

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 55 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005075021	A2	20050818	WO 2005-IB228	20050131
WO 2005075021	A3	20060720		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2553899	AA	20050818	CA 2005-2553899	20050131
EP 1715895	A2	20061102	EP 2005-702379	20050131
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU			
PRIORITY APPLN. INFO.:			US 2004-543078P	P 20040209
			WO 2005-IB228	W 20050131

OTHER SOURCE(S): MARPAT 143:235348

AB The present invention provides a chemical modified **human Growth Hormone** (hGH) receptor antagonists, which are recombinant hGH proteins prepared by attaching a single polyethylene glycol (PEG) moiety to the N-terminus. The chemical-modified hGH receptor antagonist have decreased PEGylation heterogeneity and may also have decreased plasma residency duration, decreased clearance rate, improved stability, decreased antigenicity, increased binding affinity, increased potency or a combination thereof. The present invention relates to a method of using aldehyde chemical to direct selectivity of the PEG moiety to the N-terminus using a butyryl-aldehyde linker moiety. An embodiment of the present invention is a **human growth hormone** receptor antagonist-PEG conjugate having the structure of Formula: $m\text{PEG-O}(\text{CH}_2\text{CH}_2)_n(\text{CH}_2)_m\text{CH}_2\text{-NH-R}$, wherein n is an integer between 1 and 10; m is an integer between 1 and 10; R is hGH receptor antagonist. In addition, the present invention relates to pharmaceutical compns. comprising the modified hGH receptor antagonist. A further embodiment is the use of the modified hGH receptor antagonist for the treatment of growth and development disorders.

IC ICM A61P005-04
ICS A61K047-48

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1, 2

ST **human growth hormone** receptor antagonist
polyethylene glycol conjugate; **somatotropin** synthetic variant
PEGylation therapeutic

IT Neoplasm
(GH-responsive; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT Growth hormone receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antagonists, conjugates; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT Drug delivery systems
(carriers; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT **Acromegaly**
Growth disorders, animal
Human
(chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT Kidney, disease
(diabetic nephropathy; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT Eye, disease
(diabetic retinopathy; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT Development, mammalian postnatal
(disorder; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT **Growth disorders, animal**
(gigantism; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT Cell proliferation
(inhibition; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT Protein sequences
(of hGH receptor antagonist; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT 63-91-2, Phenylalanine, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(N-terminal of hGH antagonist; chemical-modified **human**

growth hormone receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT **862754-49-2D**, variants
 RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid sequence; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT **672305-37-2DP**, conjugates
 RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (branched chain PEG-ALD hGH antagonist; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT **218620-50-9**, B2036
 RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT 25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol, conjugates
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT 123-72-8, Butyryl-aldehyde
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (linker moiety; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT **9002-72-6, Somatotropin 9002-72-6D**, Growth hormone, conjugates
 RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (recombinant, modified; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

IT **862754-49-2D**, variants
 RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid sequence; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

RN 862754-49-2 HCAPLUS
 CN Growth hormone receptor antagonist B2036 (synthetic human) (9CI) (CA INDEX NAME)

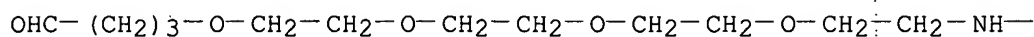
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IT **672305-37-2DP**, conjugates
 RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (branched chain PEG-ALD hGH antagonist; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

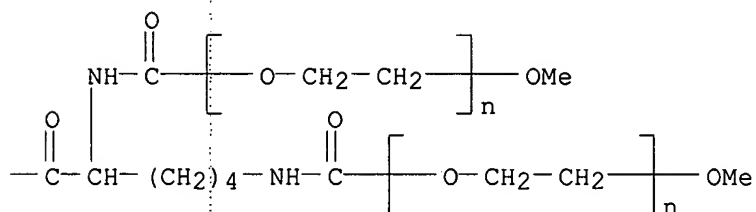
Audet 10771895

uses)
RN 672305-37-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1S)-1-(1,18-dioxo-5,8,11,14-tetraoxa-2-azaooctadec-1-yl)-1,5-pentanediy]bis(iminocarbonyl)]bis[ω -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT **218620-50-9**, B2036
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)
RN 218620-50-9 HCAPLUS
CN Somatotropin [18-aspartic acid, 21-asparagine, 120-lysine, 167-asparagine, 168-alanine, 171-serine, 172-arginine, 174-serine, 179-threonine] (human), pegylated (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **9002-72-6**, **Somatotropin 9002-72-6D**, Growth hormone, conjugates
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (recombinant, modified; chemical-modified **human growth hormone** receptor (hGH) antagonist conjugates, particularly N-terminal mono-PEGylated hGH antagonist, and therapeutic uses)

RN 9002-72-6 HCAPLUS
CN Somatotropin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9002-72-6 HCAPLUS
CN Somatotropin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L54 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:589444 HCAPLUS

Audet 10771895

DOCUMENT NUMBER: 141:128868
TITLE: Polymeric reagents comprising a ketone or a related functional group
INVENTOR(S): McManus, Samuel P.; Kozlowski, Antoni; Shen, Xiaoming; Cook, Daniel C.
PATENT ASSIGNEE(S): Nektar Therapeutics Al, Corporation, USA
SOURCE: PCT Int. Appl., 183 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004060406	A2	20040722	WO 2003-US41743	20031231
WO 2004060406	A3	20050127		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2509248	AA	20040722	CA 2003-2509248	20031231
AU 2003303519	A1	20040729	AU 2003-303519	20031231
US 2005031576	A1	20050210	US 2003-751009	20031231
EP 1581260	A2	20051005	EP 2003-815012	20031231
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1744918	A	20060308	CN 2003-80109450	20031231
JP 2006516295	T2	20060629	JP 2004-564925	20031231
PRIORITY APPLN. INFO.:			US 2002-437325P	P 20021231
			WO 2003-US41743	W 20031231

AB Polymeric reagents comprising a polymer attached, either directly or through one or more atoms to a ketone or a related functional group such as ketone hydrate, thione, monothiohydrate, dithiohydrate, hemiketal, monothiohemiketal, dithiohemiketal, ketal, or dithioketal are provided. The polymeric reagents are useful for, among other things, forming polymer-active agent conjugates. Related methods, compns., preps., and so forth are also provided. For example, to 3.0 mg of lysozyme dissolved in 1 mL of 20 mM sodium phosphate buffer (pH 5.0) was added 21 mg of PEG- α -hydroxy- ω -2-propanone di-Et ketal (preparation given). After 15 min, 0.159 M solution of NaCNBH₃ was added and the solution was stirred for 20 h at room temperature. Anal. of the reaction mixture by SDS-PAGE showed that PEGylated lysozyme was formed.

IC ICM A61K047-48

CC 63-6 (Pharmaceuticals)

IT Section cross-reference(s): 35

57-55-6, 1,2-Propanediol, reactions 78-96-6, 1-Amino-2-propanol
97-64-3, Ethyl lactate 122-51-0, Triethyl orthoformate 123-76-2,
Levulinic acid 617-35-6, Ethyl pyruvate 9002-68-0, FSH
9002-72-6, Growth hormone 9004-74-4, MPEG 11096-26-7,
Erythropoietin 37698-53-6, Amphotericin B hydrochloride 41979-39-9,
4-Piperidone hydrochloride 61798-04-7, 1,3-Diaminoacetone
dihydrochloride 80506-64-5 81927-55-1, Benzyl 2,2,2-

trichloroacetimidate 92451-01-9 143011-72-7, GCSF 159540-80-4
174569-25-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of polymeric reagents comprising ketone or related functional group for drug conjugation)

IT 2040-44-0P 7476-20-2P 70448-03-2P, 2-Benzoyloxy-1-propanol
84293-53-8P 104318-84-5P 161927-25-9P 161927-26-0P 175172-61-9P
384378-74-9P 524957-45-7P 524957-46-8P 724773-68-6P 724773-69-7P
724773-70-0P 724773-71-1P 724773-72-2P 724773-73-3P 724773-74-4P
724773-75-5P 724773-76-6P 724773-77-7P 724773-78-8P 724773-79-9P
724773-80-2P 724773-81-3P 724773-82-4P 724773-83-5P 724773-84-6P
724773-85-7P 724773-86-8P 724773-88-0P 724773-90-4P 724773-91-5P
724773-92-6P 724773-93-7P 724773-94-8P 724773-95-9P 724773-96-0P
724773-97-1P 724773-98-2P 724773-99-3P 724774-00-9P 724774-01-0P
724774-02-1P 724774-03-2P 724774-04-3P 724774-05-4P 724774-06-5P
724774-07-6P 724774-08-7P 724774-09-8P 724774-10-1P 724774-11-2P
724774-12-3P 724774-13-4P 724774-14-5P **724774-15-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of polymeric reagents comprising ketone or related functional group for drug conjugation)

IT 1397-89-3DP, Amphotericin B, drug conjugates 9001-63-2DP, Lysozyme,
conjugates with PEG derivative 9002-68-0DP, FSH, conjugates with PEG
derivative

9002-72-6DP, Growth hormone, conjugates with PEG derivative
11096-26-7DP, Erythropoietin, conjugates with PEG derivative 143011-72-7DP,
GCSF, conjugates with PEG derivative 384378-74-9DP, drug conjugates
724773-69-7DP, conjugates with lysozyme 724773-71-1DP, conjugates with
lysozyme 724773-72-2DP, conjugates with lysozyme 724773-73-3DP,
conjugates with lysozyme 724773-75-5DP, drug conjugates 724773-76-6DP,
drug conjugates 724773-77-7DP, drug conjugates

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of polymeric reagents comprising ketone or related functional group for drug conjugation)

IT **9002-72-6**, Growth hormone

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of polymeric reagents comprising ketone or related functional group for drug conjugation)

RN 9002-72-6 HCAPLUS

CN Somatotropin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

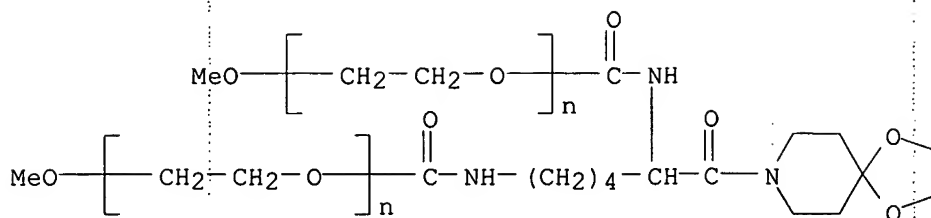
IT **724774-15-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of polymeric reagents comprising ketone or related functional group for drug conjugation)

RN 724774-15-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1S)-1-(1,4-dioxa-8-azaspiro[4.5]dec-8-ylcarbonyl)-1,5-pentanediy]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)



IT **9002-72-6DP**, Growth hormone, conjugates with PEG derivative
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of polymeric reagents comprising ketone or related functional group for drug conjugation)
 RN 9002-72-6 HCAPLUS
 CN Somatotropin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L54 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:533960 HCAPLUS
 DOCUMENT NUMBER: 141:94299
 TITLE: N-Terminally monoPEGylated **human growth hormone** conjugates and process for their preparation
 INVENTOR(S): Finn, Rory F.
 PATENT ASSIGNEE(S): Pharmacia Corporation, USA
 SOURCE: U.S. Pat. Appl. Publ., 20 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004127417	A1	20040701	US 2003-718340	20031120
NL 1024831	A1	20040526	NL 2003-1024831	20031120
NL 1024831	C2	20050428		
US 2004142870	A1	20040722	US 2004-771895	20040204
NL 1028837	A1	20050830	NL 2005-1028837	20050421
NL 1028837	C2	20060814		

PRIORITY APPLN. INFO.: US 2002-427823P P 20021120
 US 2003-718340 A2 20031120

AB The present invention provides a chemical modified **human Growth Hormone** (hGH) prepared by attaching a polyethylene glycol butyraldehyde moiety to the N-terminal phenylalanine of the protein. The chemical-modified protein according to the present invention may have a much longer lasting hGH activity than that of the un-modified hGH, enabling reduced dose and scheduling opportunities.

IC ICM A61K038-27
 ICS C07K014-61

INCL 514012000; X53-039.9

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 2, 35

IT Kidney, disease

(failure, chronic, treatment of; preparation, pharmacokinetics, and pharmacodynamics of **human growth hormone**)

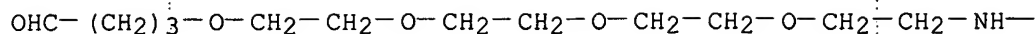
Audet 10771895

-PEG conjugates)
IT Protein sequences
(of **human growth hormone**; preparation,
pharmacokinetics, and pharmacodynamics of **human
growth hormone-PEG conjugates**)
IT Drug bioavailability
Drug delivery systems
Human
(preparation, pharmacokinetics, and pharmacodynamics of **human
growth hormone-PEG conjugates**)
IT Developmental disorders
Growth disorders, animal
Turner syndrome
(treatment of; preparation, pharmacokinetics, and pharmacodynamics of
human growth hormone-PEG conjugates)
IT 714394-75-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**human growth hormone** sequence; preparation,
pharmacokinetics, and pharmacodynamics of **human
growth hormone-PEG conjugates**)
IT 9002-72-6DP, **Somatotropin**, conjugates with PEG derivative
82030-87-3DP, Methionyl **human growth
hormone**, conjugates with PEG derivative 672305-37-2DP,
conjugates with **human growth hormone**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP
(Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(preparation, pharmacokinetics, and pharmacodynamics of **human
growth hormone-PEG conjugates**)
IT 9002-72-6, **Somatotropin** 533881-58-2
672305-37-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation, pharmacokinetics, and pharmacodynamics of **human
growth hormone-PEG conjugates**)
IT 9002-72-6DP, **Somatotropin**, conjugates with PEG derivative
82030-87-3DP, Methionyl **human growth
hormone**, conjugates with PEG derivative 672305-37-2DP,
conjugates with **human growth hormone**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP
(Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(preparation, pharmacokinetics, and pharmacodynamics of **human
growth hormone-PEG conjugates**)
RN 9002-72-6 HCAPLUS
CN Somatotropin (9CI) (CA INDEX NAME)

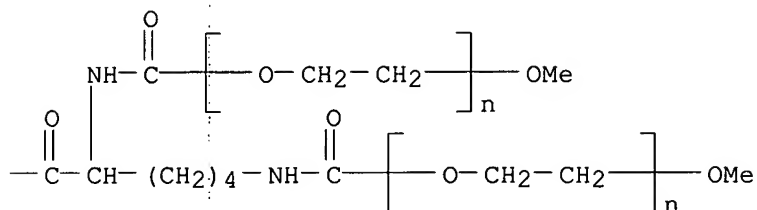
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 82030-87-3 HCAPLUS
CN Somatotropin (human), N-L-methionyl- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 672305-37-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1S)-1-(1,18-dioxo-5,8,11,14-
tetraoxa-2-azaooctadec-1-yl)-1,5-pentanediy]bis(iminocarbonyl)]bis[ω -
methoxy- (9CI) (CA INDEX NAME)

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IT 9002-72-6, Somatotropin 672305-37-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation, pharmacokinetics, and pharmacodynamics of *human growth hormone*-PEG conjugates)

RN 9002-72-6 HCAPLUS

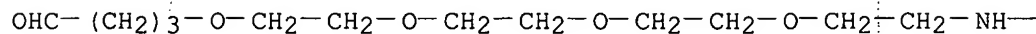
CN Somatotropin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

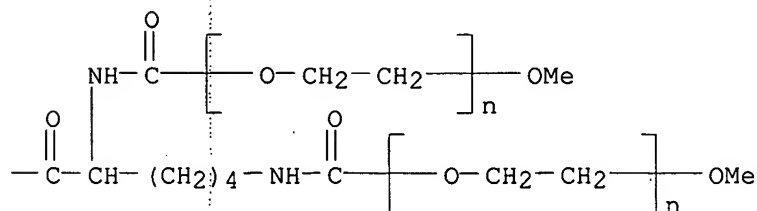
RN 672305-37-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α, α' -[[(1S)-1-(1,18-dioxo-5,8,11,14-tetraoxa-2-azaoctadec-1-yl)-1,5-pentanediy]bis(iminocarbonyl)]bis(ω -methoxy- (9CI) (CA INDEX NAME)

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PAGE 1-B



Audet 10771895

L54 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:220384 HCAPLUS
DOCUMENT NUMBER: 140:271415
TITLE: Water-soluble polymer alkanals
INVENTOR(S): Kozlowski, Antoni
PATENT ASSIGNEE(S): Nektar Therapeutics Al, Corporation, USA
SOURCE: PCT Int. Appl., 127 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022630	A2	20040318	WO 2003-US28221	20030909
WO 2004022630	A3	20040415		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2498167	AA	20040318	CA 2003-2498167	20030909
AU 2003270454	A1	20040329	AU 2003-270454	20030909
US 2004116649	A1	20040617	US 2003-659734	20030909
EP 1546235	A2	20050629	EP 2003-752147	20030909
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003014172	A	20050726	BR 2003-14172	20030909
CN 1688631	A	20051026	CN 2003-824049	20030909
EP 1591467	A1	20051102	EP 2005-76371	20030909
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU			
JP 2005538224	T2	20051215	JP 2004-534787	20030909
CN 1763122	A	20060426	CN 2005-10113391	20030909
NO 2005001077	A	20050408	NO 2005-1077	20050228
NO 2005001078	A	20050408	NO 2005-1078	20050228
ZA 2005002507	A	20050909	ZA 2005-2507	20050329
AU 2005202019	A1	20050602	AU 2005-202019	20050511
JP 2005350470	A2	20051222	JP 2005-168925	20050608
US 2006194940	A1	20060831	US 2006-375698	20060313
PRIORITY APPLN. INFO.:			US 2002-409251P	P 20020909
			US 2003-456580P	P 20030319
			AU 2003-270454	A3 20030909
			CN 2003-824049	A3 20030909
			EP 2003-752147	A3 20030909
			JP 2004-534787	A3 20030909
			US 2003-659734	A1 20030909
			WO 2003-US28221	W 20030909

AB The present invention is directed to alkanal derivs. of water-soluble polymers such as poly(ethylene glycol), their corresponding hydrates and acetals, and to methods for preparing and using such polymer alkanals. The polymer alkanals of the invention are prepared in high purity and exhibit

storage stability. Thus, 2.0 g polyethylene glycol Me ether and 0.5 g 4-chlorobutyraldehyde di-Et acetal were reacted in the presence of 4.0 mL 1.0 M potassium tert-butoxide tert-butanol solution at 100-105° to give 1.6 g methoxy polyethylene glycol butyraldehyde di-Et acetal, 1.0 g of which was hydrolyzed to give 0.72 g methoxy polyethylene glycol butyraldehyde, which was used for pegylation of lysozyme.

IC ICM C08G065-329
ICS C07C047-198; C07K001-107

CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 63

IT 38300-73-1P 63483-09-0P 177604-28-3P 533881-58-2P 672305-31-6P
672305-32-7DP, reaction products with lysozyme 672305-32-7P
672305-33-8P 672305-34-9P 672305-35-0P **672305-36-1P**
672305-38-3P 672305-39-4P 672305-41-8P 672305-42-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; preparation of water-soluble polymer alkanals for pegylation
of lysozyme)

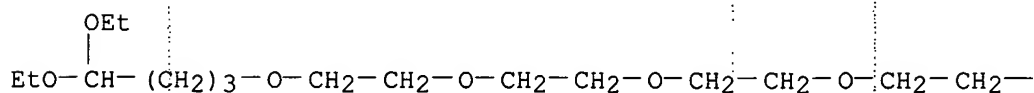
IT 1397-89-3DP, Amphotericin B, reaction products with methoxy
polyoxyalkylene butyral 9001-63-2DP, Lysozyme, amino derivs., reaction
products with methoxy polyethylene glycol butyraldehyde 9002-68-0DP,
Follicle stimulating hormone, reaction products with methoxy
polyoxyalkylene butyral **9002-72-6DP, Somatotropin**,
reaction products with methoxy polyoxyalkylene butyral 11096-26-7DP,
EPO, reaction products with methoxy polyoxyalkylene butyral
143011-72-7DP, GCSF, reaction products with methoxy polyoxyalkylene
butyral 533881-58-2DP, reaction products with lysozyme
672305-37-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of water-soluble polymer alkanals for pegylation of lysozyme)

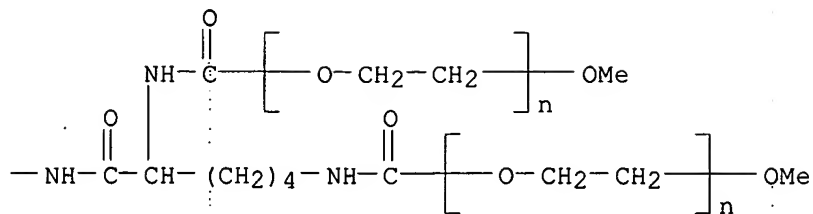
IT **672305-36-1P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; preparation of water-soluble polymer alkanals for pegylation
of lysozyme)

RN 672305-36-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1S)-1-(18-ethoxy-1-oxo-
5,8,11,14,19-pentaoxa-2-azaheneicos-1-yl)-1,5-
pentanediyl]bis(iminocarbonyl)]bis[ω -methoxy- (9CI) (CA INDEX NAME)

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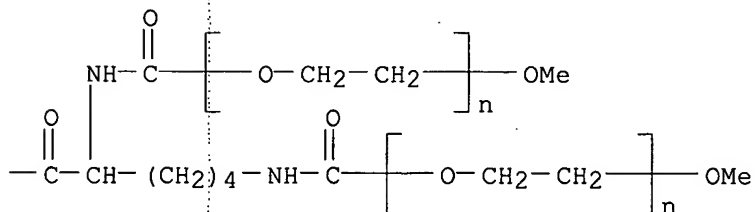
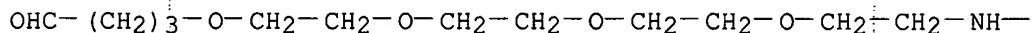




IT **9002-72-6DP, Somatotropin**, reaction products with
 methoxy polyoxyalkylene butyral **672305-37-2P**
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of water-soluble polymer alkanals for pegylation of lysozyme)
 RN 9002-72-6 HCAPLUS
 CN Somatotropin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 672305-37-2 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α, α' -[[(1S)-1-(1,18-dioxo-5,8,11,14-tetraoxa-2-azaoctadec-1-yl)-1,5-pentanediyl]bis(iminocarbonyl)]bis(ω -methoxy- (9CI) (CA INDEX NAME)



L54 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1987:50649 HCAPLUS
 DOCUMENT NUMBER: 106:50649
 TITLE: GRF 1-29.
 INVENTOR(S): Ono, Keiichi; Kai, Yoshiyuki; Takebayashi, Yoshiaki;
 Sano, Akihiko; Suwa, Kazushi
 PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English

Audet 10771895

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 193910	A2	19860910	EP 1986-102737	19860303
EP 193910	A3	19881123		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
JP 62138500	A2	19870622	JP 1985-279682	19851211
JP 62000099	A2	19870106	JP 1986-46886	19860304
US 4774319	A	19880927	US 1987-119279	19871109
PRIORITY APPLN. INFO.:			JP 1985-44370	A 19850306
			JP 1985-279682	A 19851211
			US 1986-832893	A1 19860226

OTHER SOURCE(S): CASREACT 106:50649
GI

H-Tyr-Ala-Asp-Ala-Ile-Phe-Thr-Asn-Ser-
— Tyr-Arg-Lys-Val-Leu-Gly-Gln-Leu-Ser-Ala-
— Arg-Lys-Leu-Leu-Gln-Asp-Ile-Met-Ser-Arg-NH₂ I

AB The title compound (I) was prepared by fragment condensation in solution I was prepared from fragments 23-29, 16-22, 11-15, and 1-10.

IC ICM C07K005-00

ICS C07K007-00

ICA A61K037-02

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 2

IT	103339-78-2P	105186-96-7P	105233-67-8P	105233-68-9P	105233-69-0P
	105233-70-3P	105233-71-4P	105233-72-5P	105233-75-8P	105233-76-9P
	105233-77-0P	105233-78-1P	105233-79-2P	105233-80-5P	105233-81-6P
	105233-82-7P	105233-83-8P	105233-84-9P	105233-85-0P	105233-87-2P
	105233-88-3P	105233-89-4P	105233-90-7P	105233-91-8P	105233-92-9P
	105233-93-0P	105233-94-1P	105233-95-2P	105233-96-3P	105233-97-4P
	105233-98-5P	105233-99-6P	105234-00-2P	105234-01-3P	105234-02-4P
	105234-03-5P	105234-04-6P	105234-05-7P	105234-06-8P	105234-08-0P
	105234-09-1P	105234-10-4P	105234-11-5P	105234-12-6P	105234-13-7P
	105234-14-8P	105234-15-9P	105234-16-0P	105256-56-2P	
	105256-57-3P	105256-58-4P	105256-59-5P		

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and peptide coupling of)

IT **9034-39-3P**, Growth hormone releasing factor

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 1-29 sequence of)

IT **86168-78-7P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, by fragment condensation)

IT **105256-57-3P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and peptide coupling of)

RN 105256-57-3 HCAPLUS

CN L-Leucine, N-[N2-[(1,1-dimethylethoxy)carbonyl]-N6-[(phenylmethoxy)carbonyl]-L-lysyl]-, 2-oxo-2-phenylethyl ester (9CI) (CA

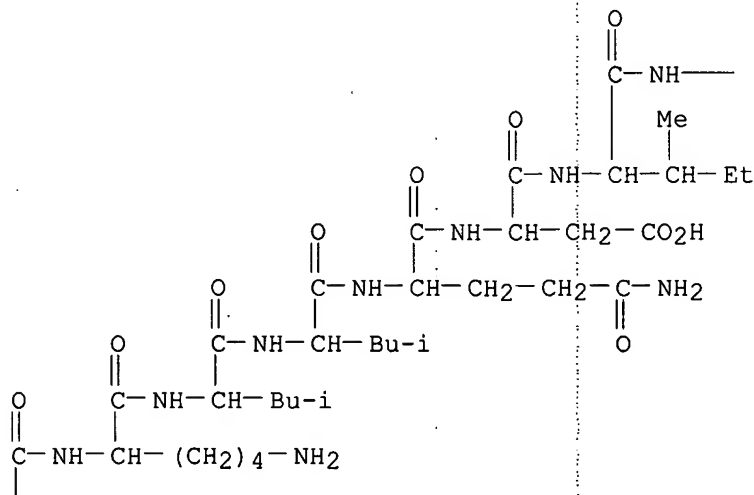
INDEX NAME)

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*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **86168-78-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by fragment condensation)
RN 86168-78-7 HCAPLUS
CN 1-29-Somatoliberin (human pancreatic islet), 29-L-argininamide (9CI) (CA
INDEX NAME)

PAGE 1-A



Audet 10771895

INVENTOR(S): Kamber, Bruno
PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.
SOURCE: Eur. Pat. Appl., 64 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 83305	A1	19830706	EP 1982-810552	19821217
EP 83305	B1	19850710		
R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE				
AT 14226	E	19850715	AT 1982-810552	19821217
US 4603120	A	19860729	US 1982-451630	19821220
FI 8204419	A	19830625	FI 1982-4419	19821222
GB 2112396	A1	19830720	GB 1982-36443	19821222
GB 2112396	B2	19850522		
ES 518453	A1	19840601	ES 1982-518453	19821222
DK 8205706	A	19830625	DK 1982-5706	19821223
NO 8204354	A	19830627	NO 1982-4354	19821223
AU 8291890	A1	19830630	AU 1982-91890	19821223
DD 207708	A5	19840314	DD 1982-246477	19821223
CA 1261548	A1	19890926	CA 1982-418437	19821223
JP 58116444	A2	19830711	JP 1982-226436	19821224
ZA 8209496	A	19831026	ZA 1982-9496	19821227
PRIORITY APPLN. INFO.:			CH 1981-8282	A 19811224
			EP 1982-810552	A 19821217

GI For diagram(s), see printed CA Issue.

AB Somatostatin analogs I [X = C4-7 α,ω -diamino acid residue, X1 = Trp, D-Trp; R = H, amidino, acyl; R1 = H, amino acyl or peptidyl; Gaba = NH(CH2)3CO] were prepared as antidiabetics and agents for treating gastrointestinal bleeding (no data). Thus, Z-Lys(Boc)-Phe-Phe-OH (Z = PhCH2O2C, Boc = CO2CMe3) was coupled with H-D-Trp-Lys(Boc)-Thr(CMe3)-Phe-OTmse (Tmse = CH2CH2SiMe3) by DCC/1-hydroxybenzotriazole (HOBT) in DMF to give Z-Lys(Boc)-Phe-Phe-D-Trp-Lys(Boc)-Thr(CMe3)-Ph-OTmse, which was deblocked and then coupled with H-Gaba-OCH2Ph tosylate by DCC/HOBT in DMF containing N-ethylmorpholine to give Z-Lys(Boc)-Phe-Phe-D-Trp-Lys(Boc)-Thr(CMe3)-Phe-Gaba-OCH2Ph. The latter was deblocked by hydrogenolysis to give H-Lys(Boc)-Phe-Phe-D-Trp-Lys(Boc)-Thr(CMe3)-Phe-Gaba-OH, which was cyclized by DCC/HOBT in DMF to give a protected cyclic peptide, which was deblocked by CF3CO2H/thioglycolic acid to give cyclo(Lys-Phe-Phe-D-Thr-Lys-Thr-Phe-Gaba).

IC C07C103-52; A61K037-02

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 63

IT 87778-71-0P 87778-76-5P 87778-78-7P 87778-86-7P **87778-90-3P**
87778-92-5P 87811-06-1P 87811-08-3P 87811-14-1P 87811-16-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cleavage of (trimethylsilyl)ethyl group from)

IT 87778-73-2P 87778-80-1P **87778-88-9P** 87778-94-7P
87811-10-7P 87811-18-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation and hydrogenolysis of)

IT **51110-01-1DP**, cyclic octapeptide analogs

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by solution methods)

Audet 10771895

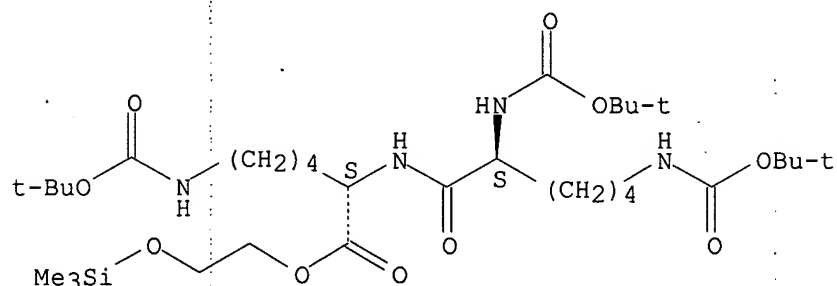
IT **87778-90-3P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cleavage of (trimethylsilyl)ethyl group from)

RN 87778-90-3 HCAPLUS

CN L-Lysine, N2-[N2,N6-bis[(1,1-dimethylethoxy)carbonyl]-L-lysyl]-N6-[(1,1-dimethylethoxy)carbonyl]-, 2-[(trimethylsilyl)oxy]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



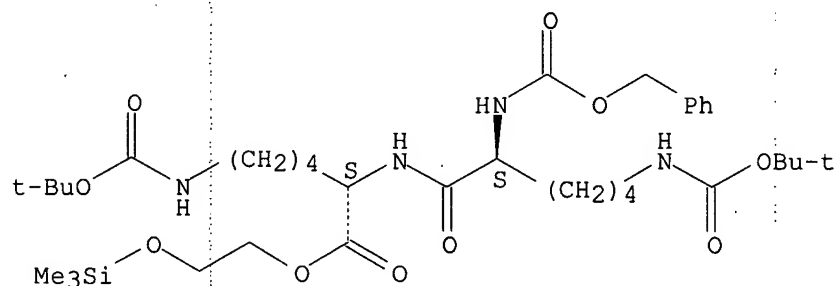
IT **87778-88-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and hydrogenolysis of)

RN 87778-88-9 HCAPLUS

CN L-Lysine, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(phenylmethoxy)carbonyl]-L-lysyl]-, 2-[(trimethylsilyl)oxy]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **51110-01-1DP**, cyclic octapeptide analogs

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by solution methods)

RN 51110-01-1 HCAPLUS

CN Somatostatin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***